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(71) Applicant (for all designated States except US): **THE
HOSPITAL FOR SICK CHILDREN [CA/CA]**; 555
University Avenue, Toronto, Ontario M5G 1X8 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DELLAIRE, Gra-
ham [CA/CA]**; 49 Williamson Road, Toronto, Ontario
M4E 1K6 (CA). **BAZETT-JONES, David, P. [CA/CA]**;
3 Lockwood Road, Toronto, Ontario M4L 3M7 (CA).

(74) Agents: **BARTOSZEWICZ, Lola, A. et al.**; Sim &
McBurney, 330 University Avenue, 6th Floor, Toronto,
Ontario M5G 1R7 (CA).

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(54) Title: **METHOD OF *IN SITU* DETECTION OF PROTEINS USING APTAMERS**

(57) **Abstract:** The present invention is a method for the detection and localization of proteins *in situ*. The method comprises contacting a peptide tag labelled protein with a nucleic acid aptamer that recognizes the peptide tag. The nucleic acid aptamer is functionalized such that is detectable by a variety of methods. The method allows for the detection of one or more proteins and/or protein complexes in sub-cellular and sub-nuclear structures with high specificity and also allows for the purification of such identified proteins.



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